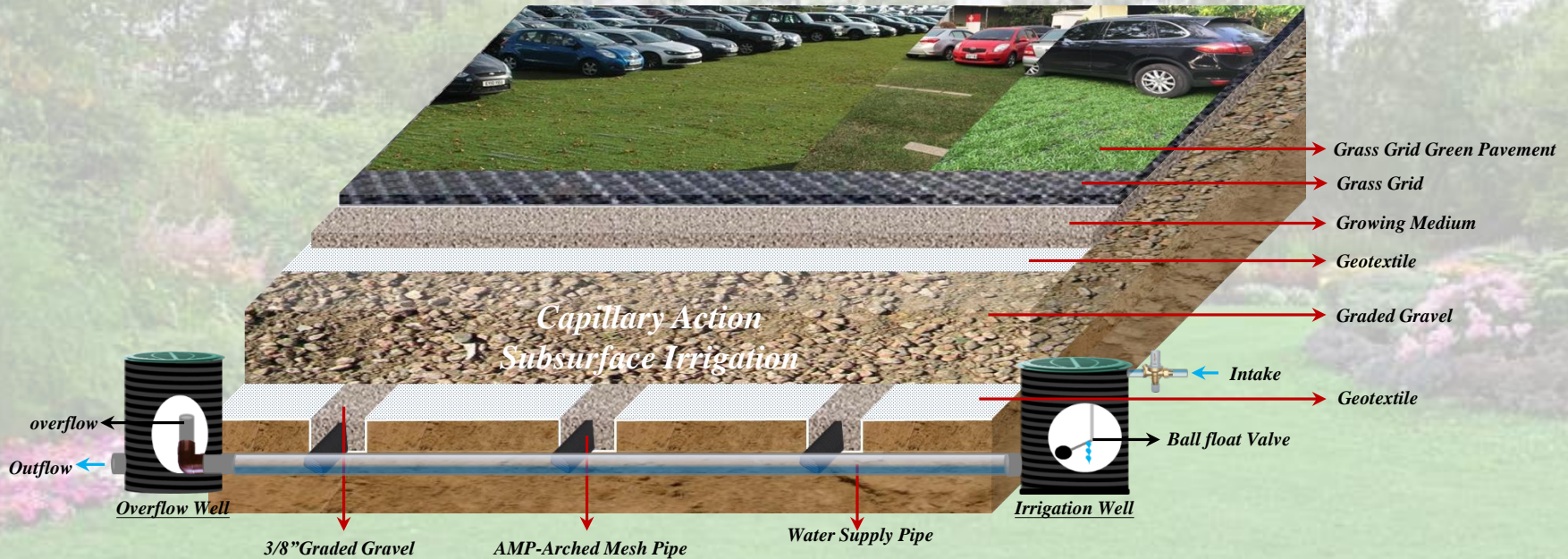


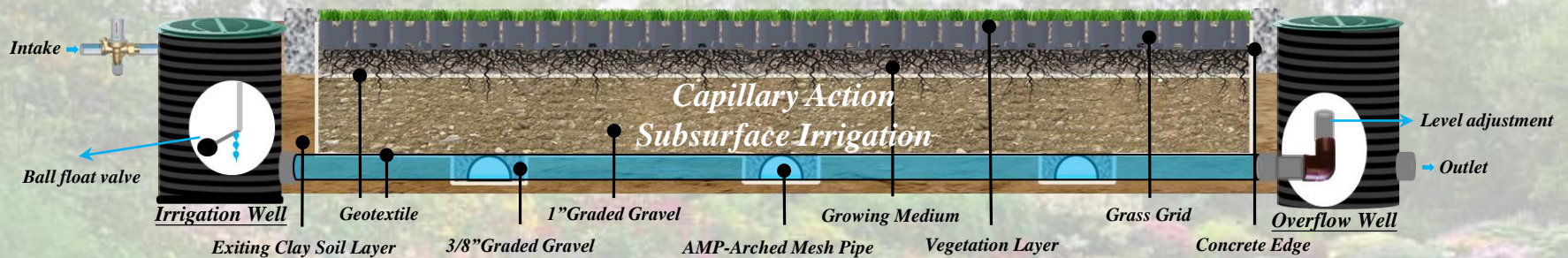
### Green Pavement Irrigation and Drainage



**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.**

### Green Pavement Irrigation and Drainage System - Structure



### AMPS-Underground Irrigation & Drainage System

- 「 **Irrigation Well** 」 Water ball float valve to control the water intake .
- 「 **AMP-Arched Mesh Pipe** 」 Irrigation water moves through the Arched Mesh Pipes and reaches root cluster areas efficiently by soil capillary action.
- 「 **Overflow Well** 」 Water level regulator to adjust the permeability of the capillary action of underground irrigation water level.
- 「 **Grass Grid** 」 Grass grid load-bearing layer provides a space for grassroots growth, capillary action of underground irrigation, providing load-bearing layer of grass grid lawn growth, roots can grow into the graded gravel layer.

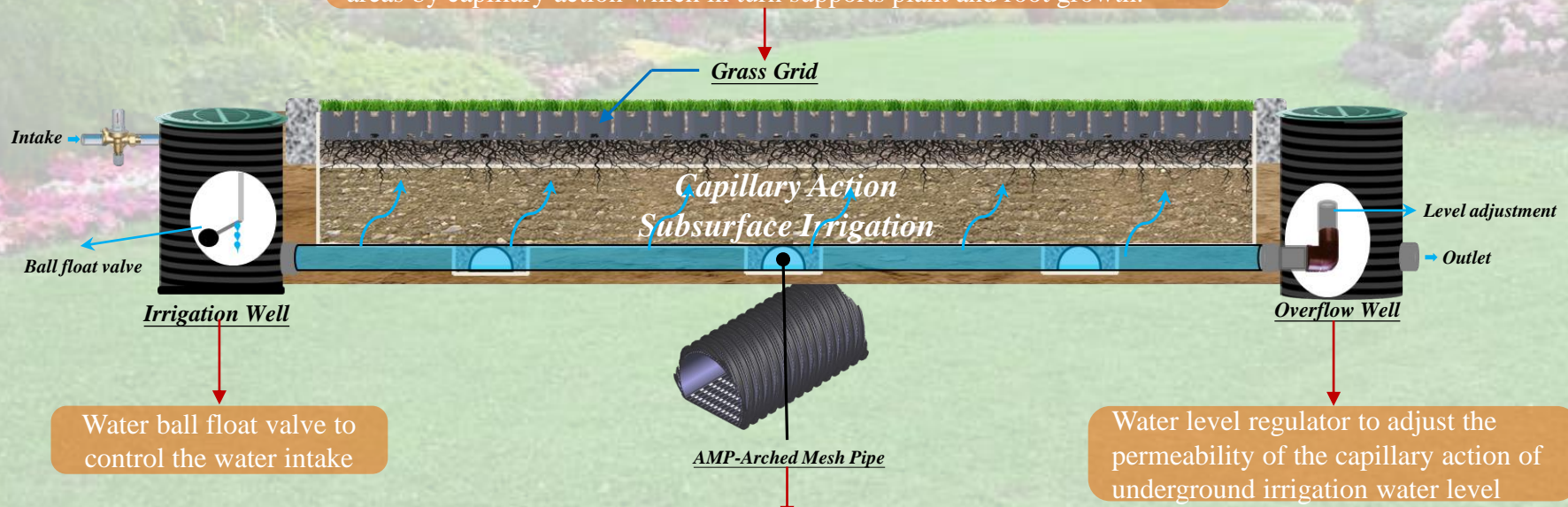


### Green Pavement Irrigation and Drainage System - functions

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.

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.

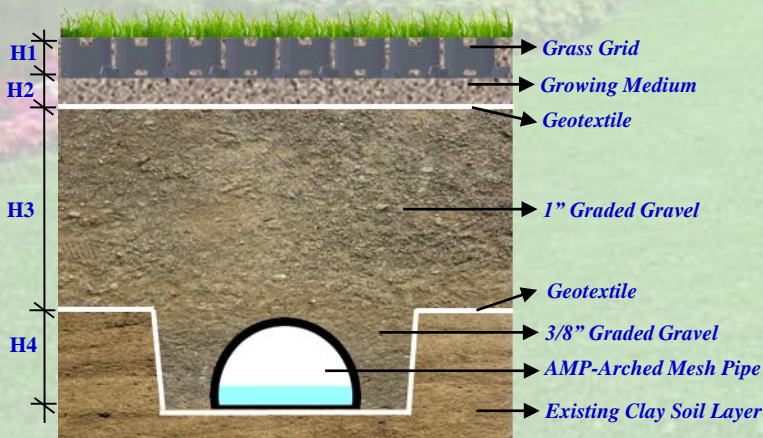
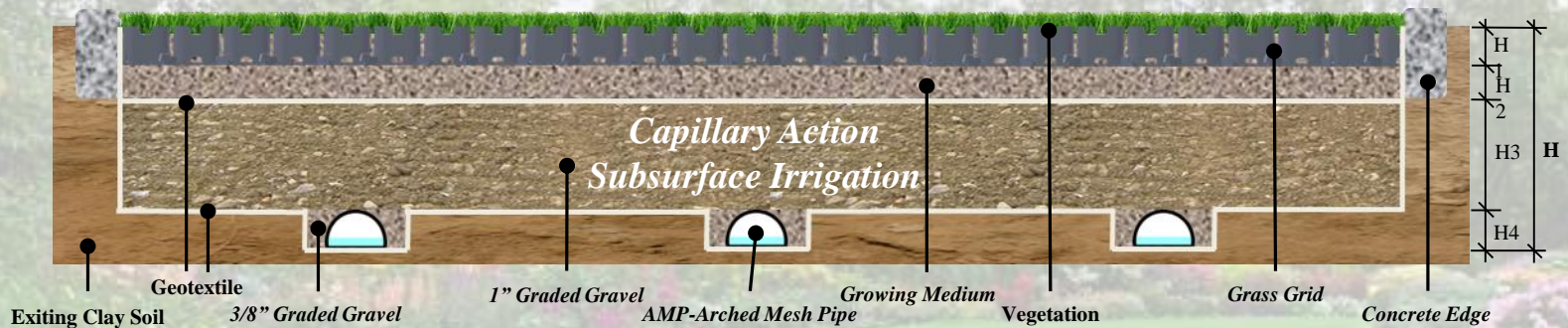


Water ball float valve to control the water intake

Irrigation water moves through the AMP-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

### Green Pavement Irrigation and Drainage - Design



Construction Site	H1	H2	H3	H4	H
Sidewalks, bike path	5cm	5cm	10cm	10cm	30cm
Community parking, driveway	5cm	5cm	20cm	10cm	40cm
Public parking, driveway	5cm	5cm	30cm	10cm	50cm
fire lanes	5cm	5cm	35cm	10cm	55cm

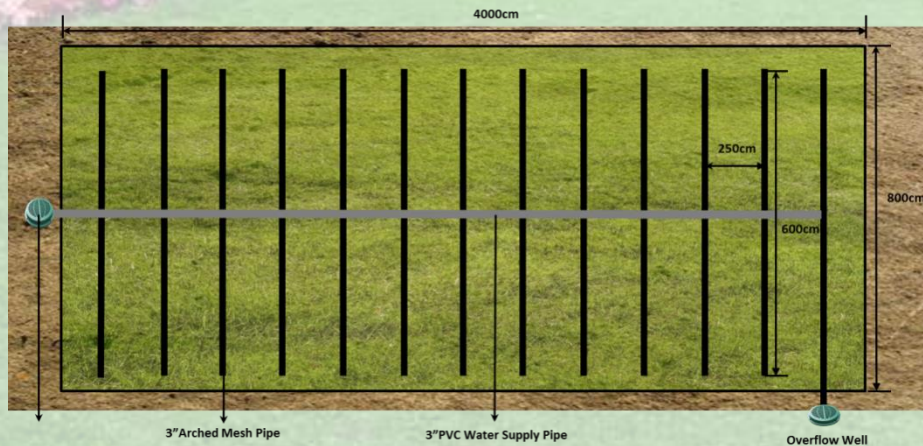
Grass Grid Permeable Green Pavement

### Green Pavement Irrigation and Drainage - Planning



### Green Pavement Irrigation and Drainage - Installation Steps

1. Position : measure the exact horizontal level and label the pipe laying locations in accordance with the construction plan indicated range.



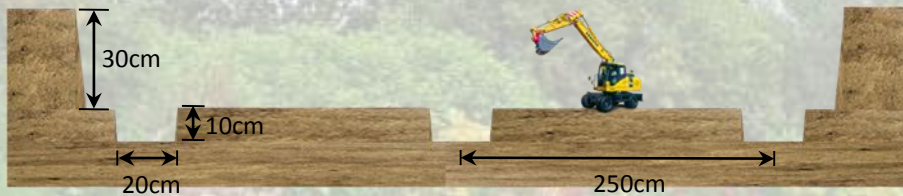
### Green Pavement Irrigation and Drainage - Installation Steps

2. Excavation : Excavate soil to the original design height, level and compact the soil to the density higher than 90%.



### Green Pavement Irrigation and Drainage - Installation Steps

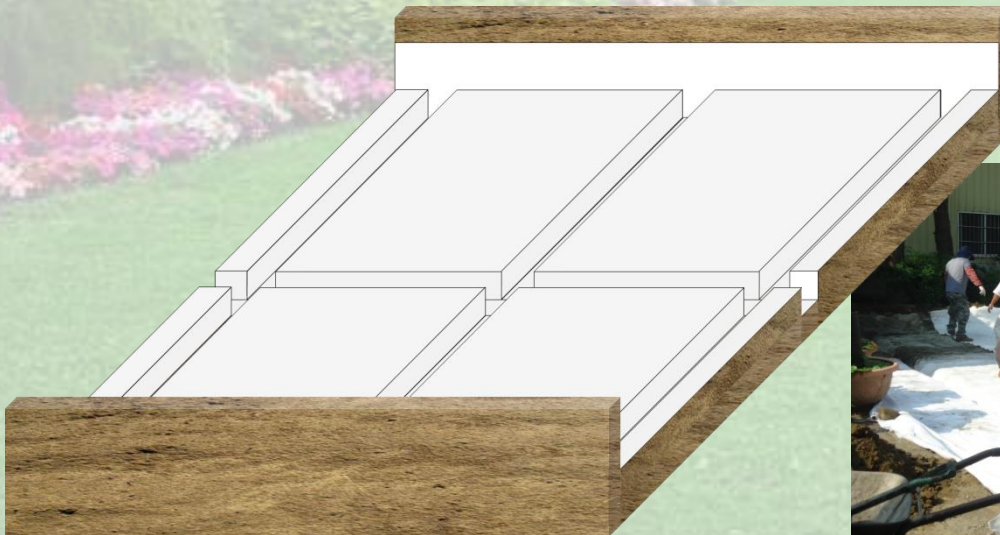
3. Trenching: trench compact soil layer with, 10cm depth \* 20cm width and spacing 250cm.





### Green Pavement Irrigation and Drainage - Installation Steps

4. Geotextile: lap width should be 15cm or more ; workers shall smooth the fabric surface to avoid wrinkles after the laying of the geotextile.



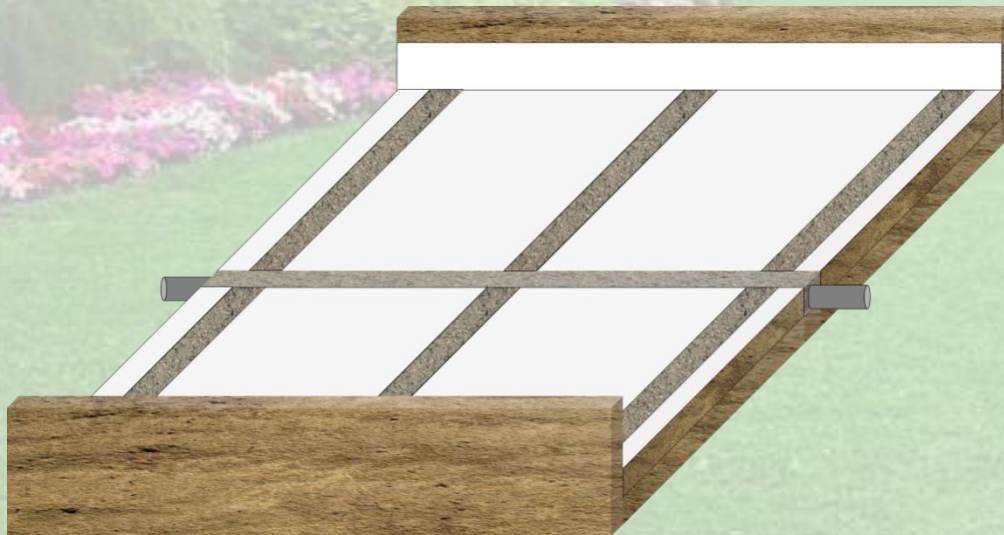
### Green Pavement Irrigation and Drainage - Installation Steps

5, Laying water supply pipes and AMP-Arched Mesh Pipe on geotextile.



### Green Pavement Irrigation and Drainage - Installation Steps

6. Filling with trenches 3/8 “ graded gravel and compacting.



### Green Pavement Irrigation and Drainage - Installation Steps

7. Laying 20cm of 1 "gravel grading high on geotextile, leveling, and compacting to the density higher than 90%.



### Green Pavement Irrigation and Drainage - Installation Steps

8, Laying geotextile on gravel grade.



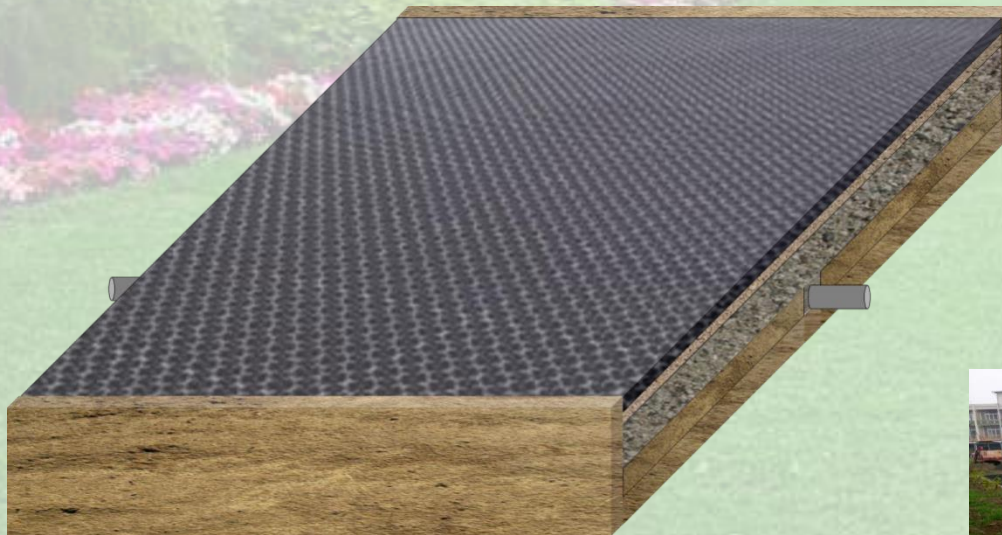
### Green Pavement Irrigation and Drainage - Installation Steps

9. Paving 5cm growing sandy soil on the geotextile layer and rolling to dense.



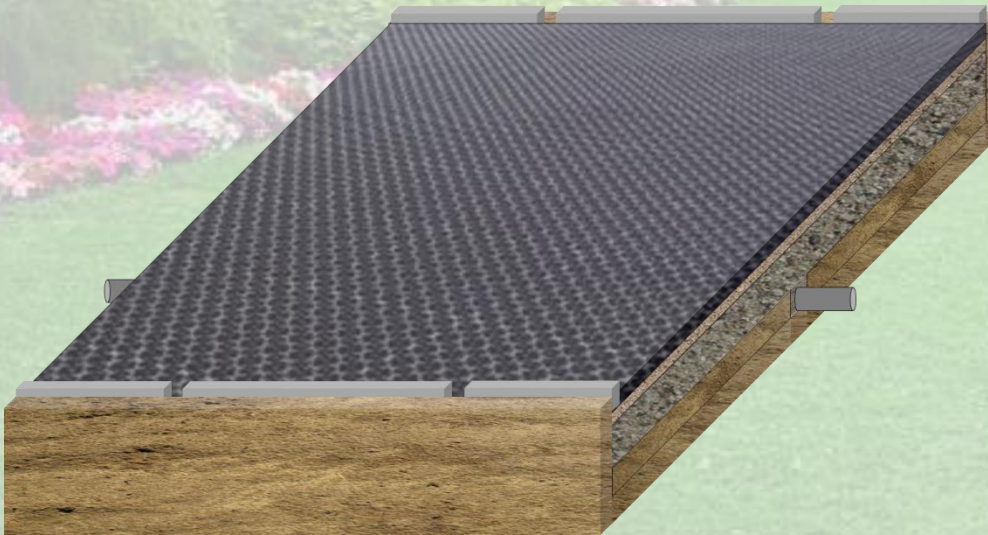
### Green Pavement Irrigation and Drainage - Installation Steps

10, Laying grass grid on sandy growing medium layer.



### Green Pavement Irrigation and Drainage - Installation Steps

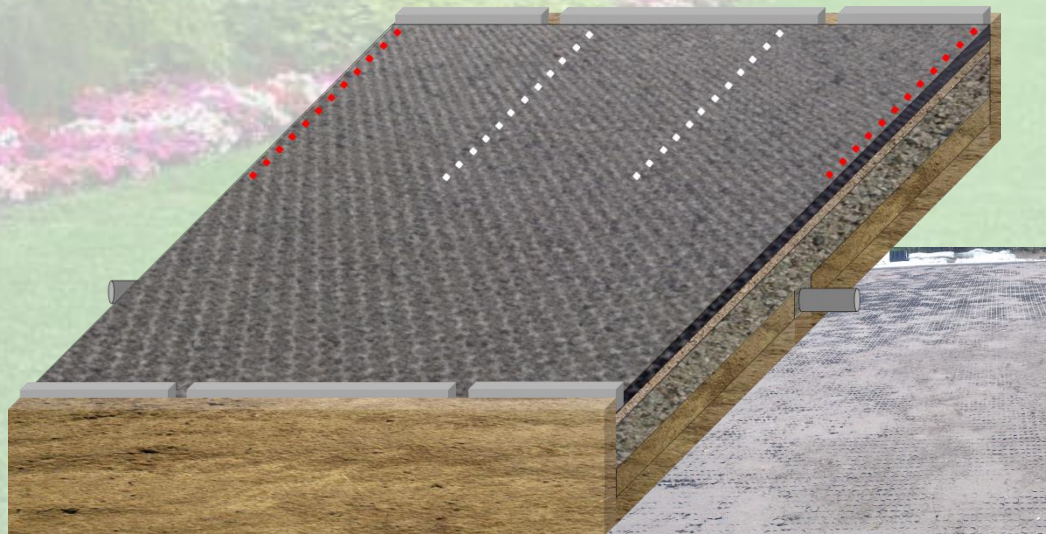
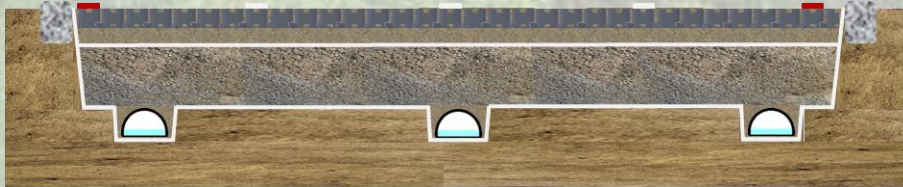
11, Laying concrete edge





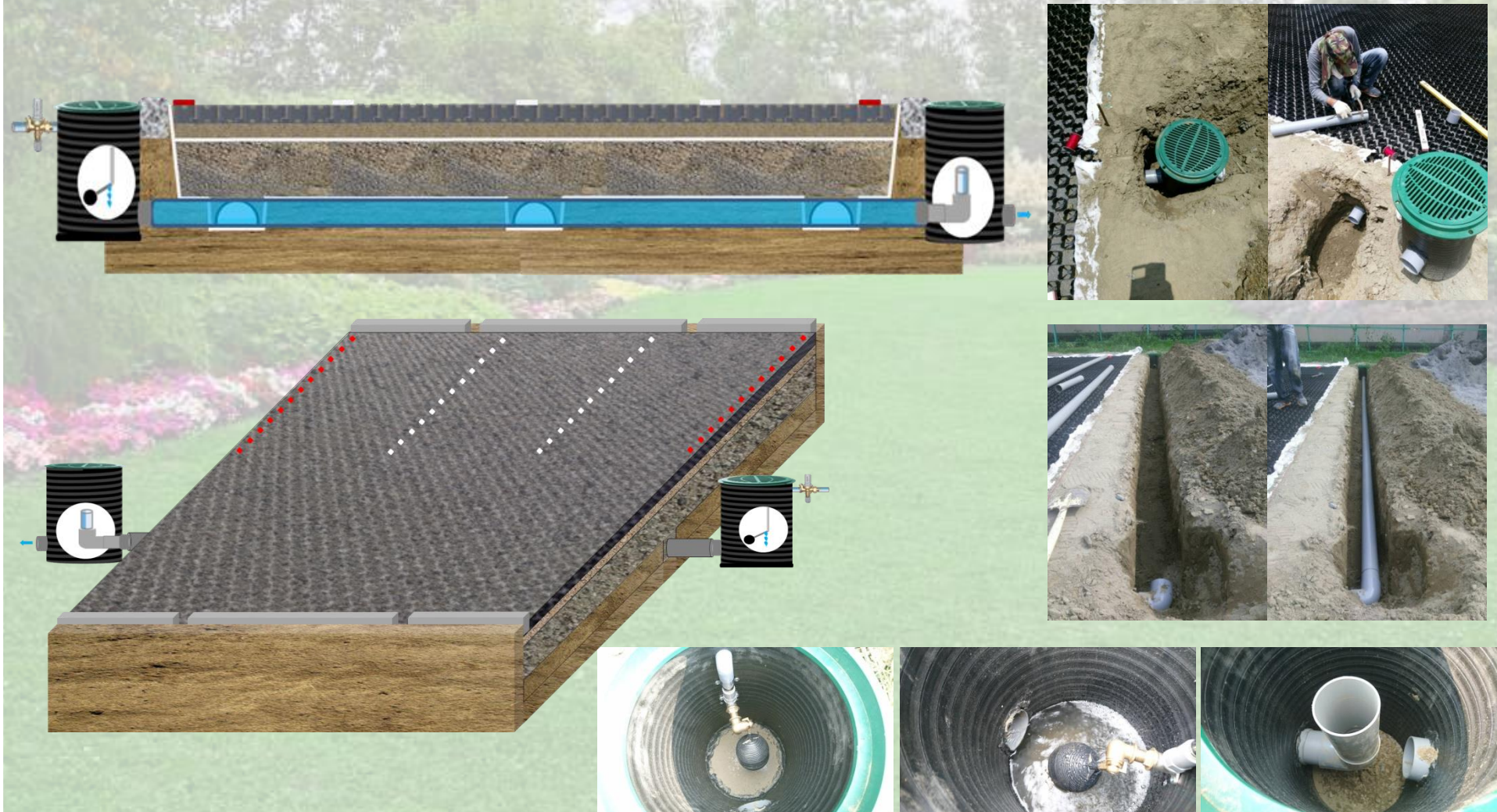
### Green Pavement Irrigation and Drainage - Installation Steps

12. Filling the grass grid box with sandy planting medium and labeling.



### Green Pavement Irrigation and Drainage - Installation Steps

13. Connecting irrigation well, overflow well and water supply pipes.



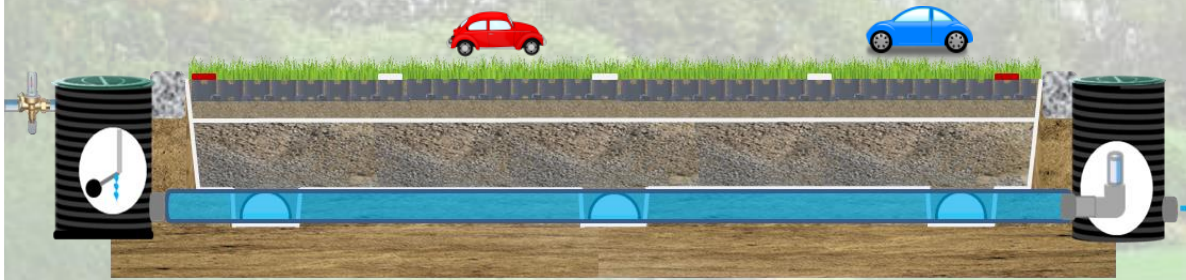
### Green Pavement Irrigation and Drainage - Installation Steps

14. Vegetation: vibrate grass root into grass grid by vibration machine after laying turf.



### Green Pavement Irrigation and Drainage - Installation Steps

15. Maintain and underground irrigation, until the grass grows for car parking.



### AMPS-Arched Mesh Pipe Underground irrigation and drainage systems Provide Multiple Benefits



#### Underground irrigation, water and energy saving

Irrigation water moves through the AMP-Arched Mesh Pipes and reaches root cluster areas efficiently by soil capillary action. Irrigation water requirements are reduced by 60% and irrigation manpower by 50%, Plant growth increase are equivalent to a 40% increase in fertilizer.

#### Promote stormwater infiltration, surface runoff mitigation

AMPS-Arched Mesh Pipe underground irrigation and drainage systems to collect and promote rainwater infiltration, reduce surface runoff.

#### Stormwater Retention and Conservation

Let the water penetration is temporarily stored in the system, and then slowly penetrate natural way penetrate to the soil.

Promote stormwater infiltration so that the soil moisture capacity and storing rainwater conservation.

#### Rainwater filter, reduce pollution

Rainwater through soil and grass (tree) root and then filtered into groundwater layer or into rivers, lakes and reduce pollution.

#### Reduce the heat island effect

AMP-Arched Mesh Pipe provides underground space to allow air convection, reduce surface temperature, reducing heat island effect.

#### Subsidence mitigation

AMP-Arched Mesh Pipe to promote rainwater infiltration, groundwater recharge, slow subsidence.

#### Reduce the occurrence of mosquito

Underground irrigation surface is dry, it will not also produce mosquito breeding problem.

#### Create a comfortable environment for the growth of plants

AMP-Arched Mesh Pipe underground space in soil moisture management, drainage, irrigation, fertilization, ventilation, temperature control, sterilization, ranked salt and other functions to create a comfortable environment for the growth of plants.

