

Green Roofs in Houston



Mark Illian

832-423-8425

mark@naturehealingnature.org



Who is Nature Healing Nature?

Child and Adult Empowerment (Stopping the Sentencing)



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mark@naturehealingnature.org



Who is Nature Healing Nature?

**Co-Creating Rainwater
Harvesting
(Potable and Non)**



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Who is Nature Healing Nature?

Eliminating Water Related
Illness on Earth
(Using Only What They Have On Hand)



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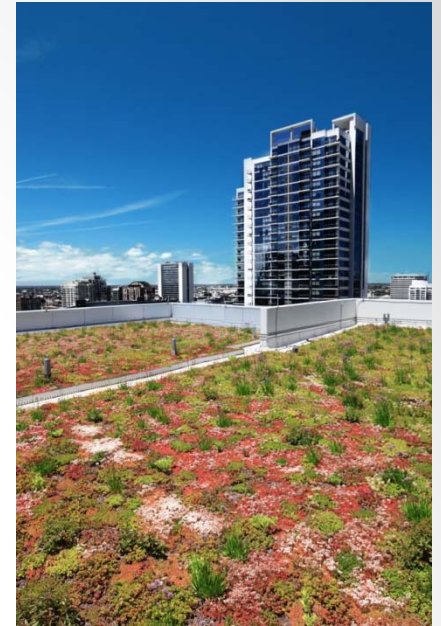
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mark@naturehealingnature.org



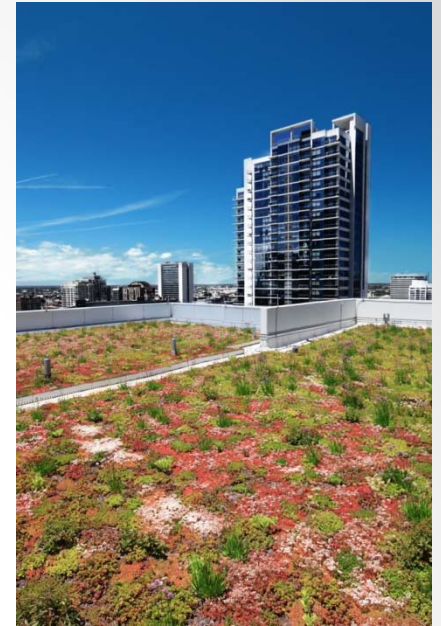
Green Roofs Solve Problems

- **Urban Heat Island Mitigation**
- **Detoxify the Air via Plant Absorption**
- **Waste Diversion (Recycled Plastic)**
- **Water Conservation/Reduction of Storm Water Runoff (90% Annually)**
- **Habitat Recreation (Butterflies, Insects, Song Birds)**
- **Noise reduction (Up To 40 decibels inside)**
- **Fire Prevention**
- **Energy Conservation (Evaporative Cooling)**



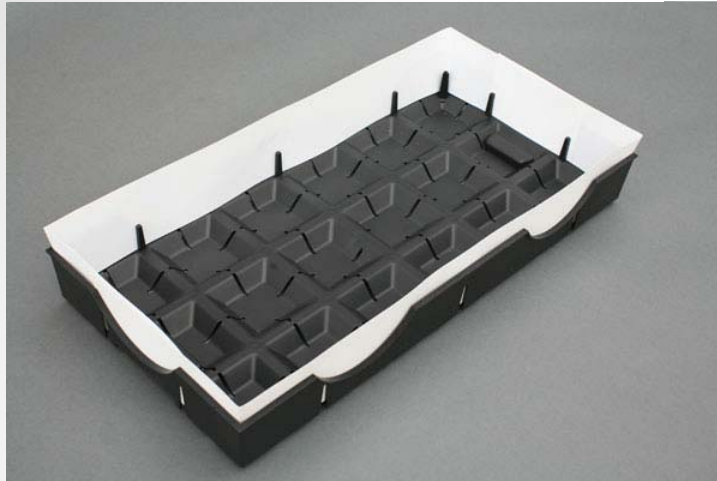
But, You've Got to Consider Things

- **Added Weight To the Roof (18 psf)**
- **Make Sure the Roof is Sealed**
- **Maintain it**
- **Water It**
- **Cut-Down the Dead Material**



What is the Technology?

The Pan



Special Soil



Plants



Installing



Installing



Maintaining



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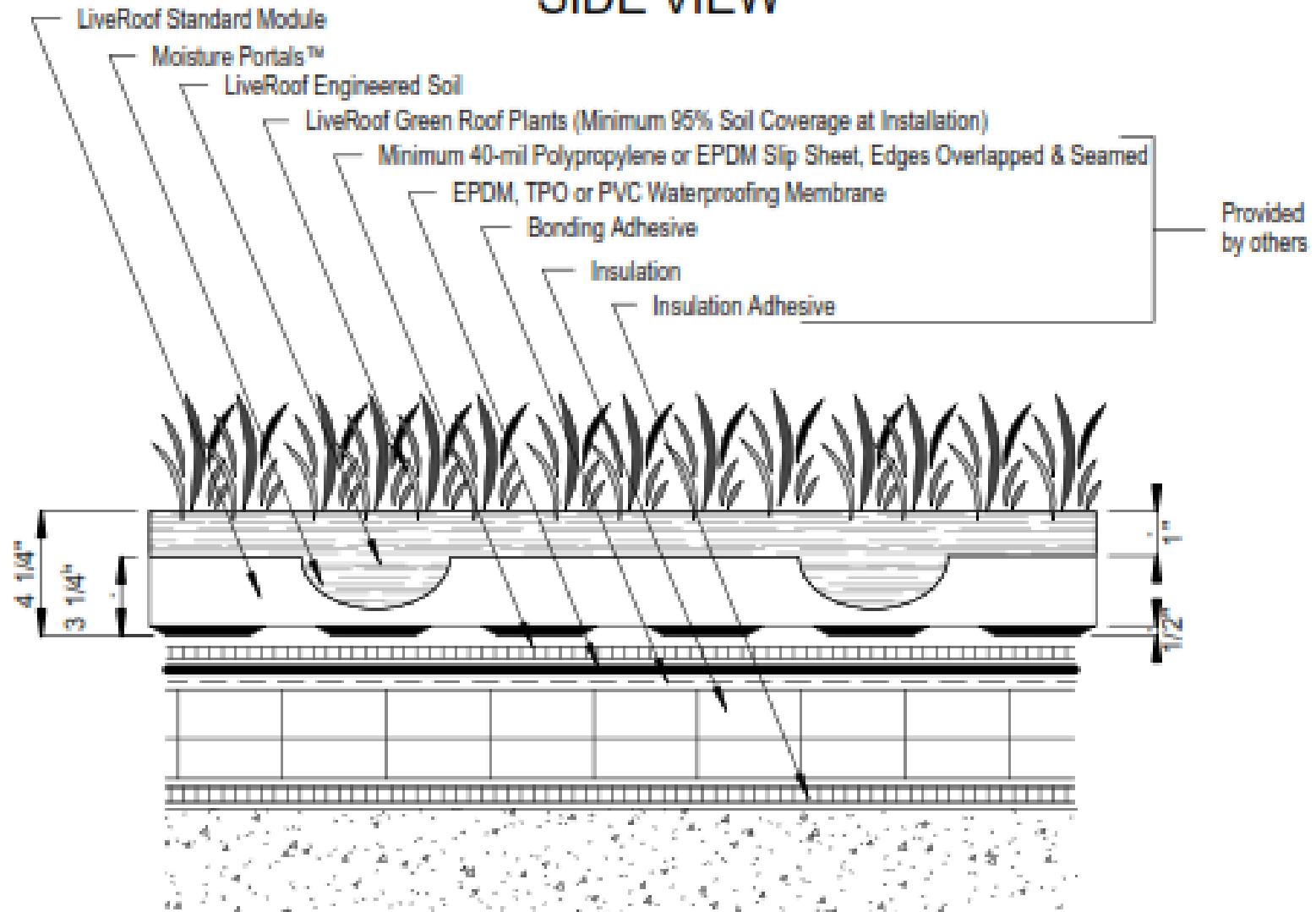
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The Details

SIDE VIEW

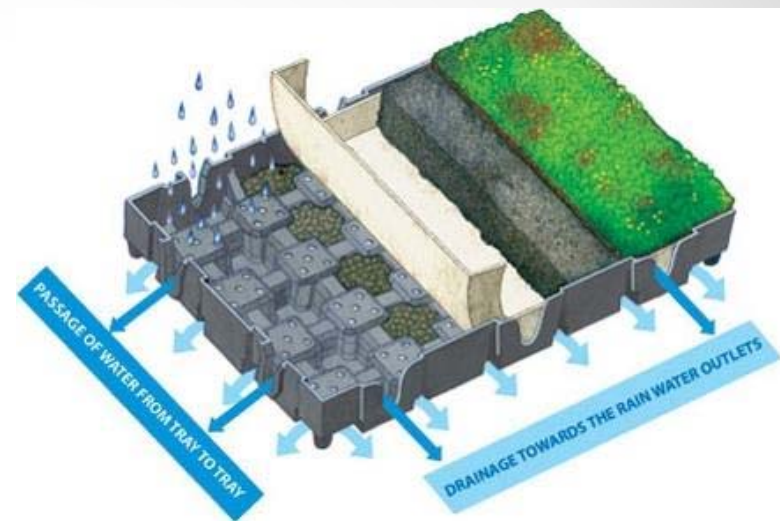
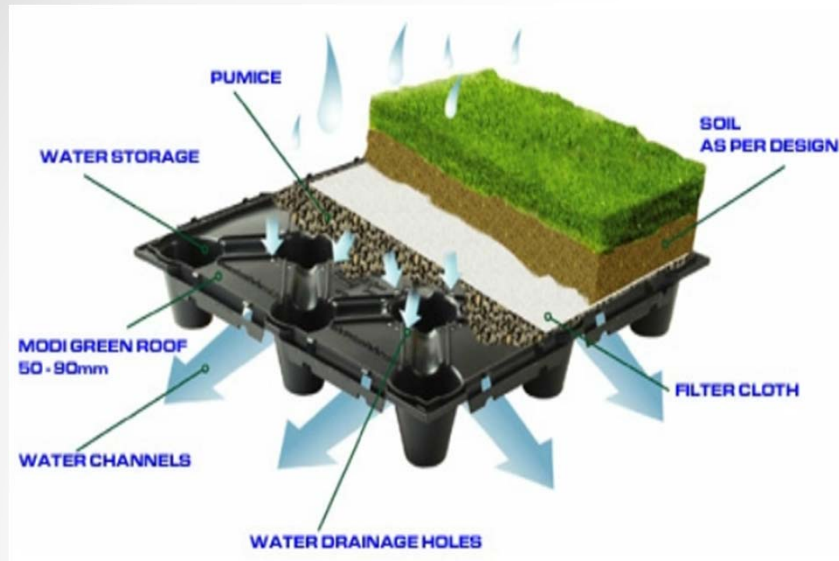


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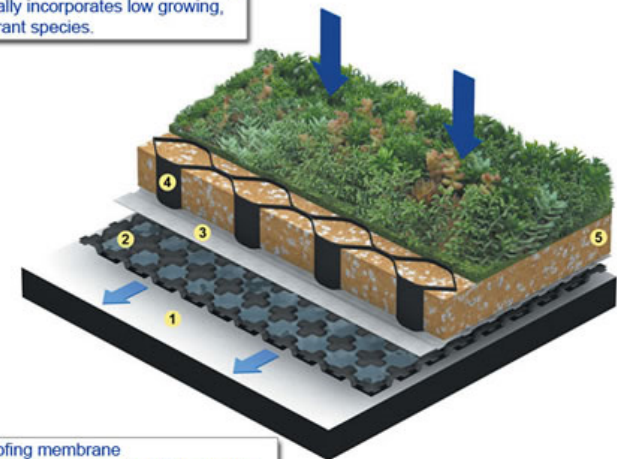
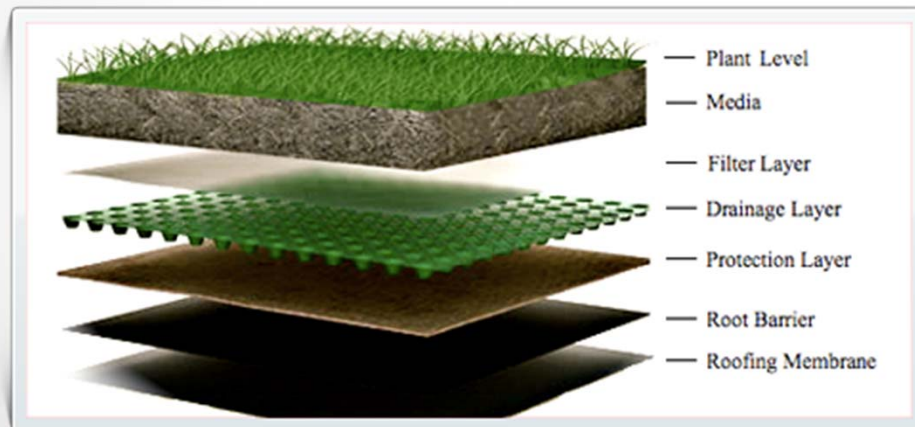
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More on Trays

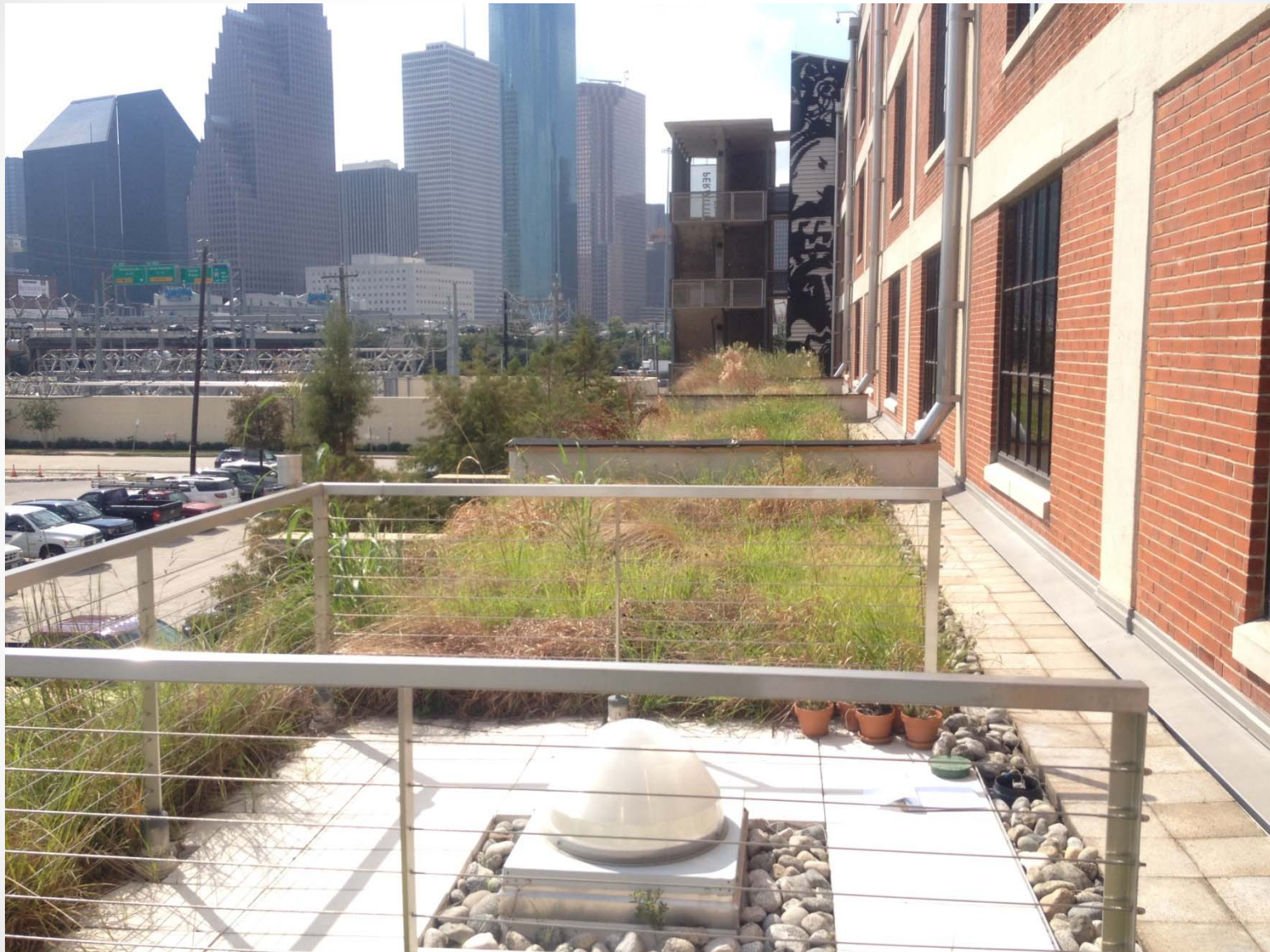


Elmhurst Extensive Green Roof System utilising < 300mm deep light weight growing media normally incorporates low growing, drought tolerant species.



1. Waterproofing membrane
2. VersiDrain® 25P retention and drainage tray
3. Geotextile
4. VersiWeb® cellular confinement cell
5. Growing media

The Code Building Roof



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Rainwater and Condensate Catchment



Tank(s)

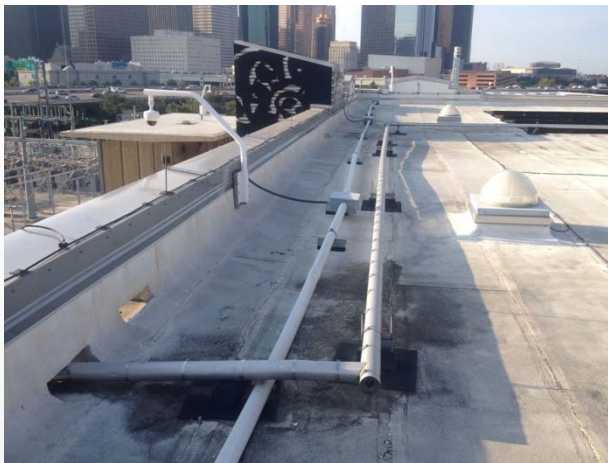


Downspout



**Roof Drain
(Rainwater & Cond.)**

Condensate Header



Air Handler

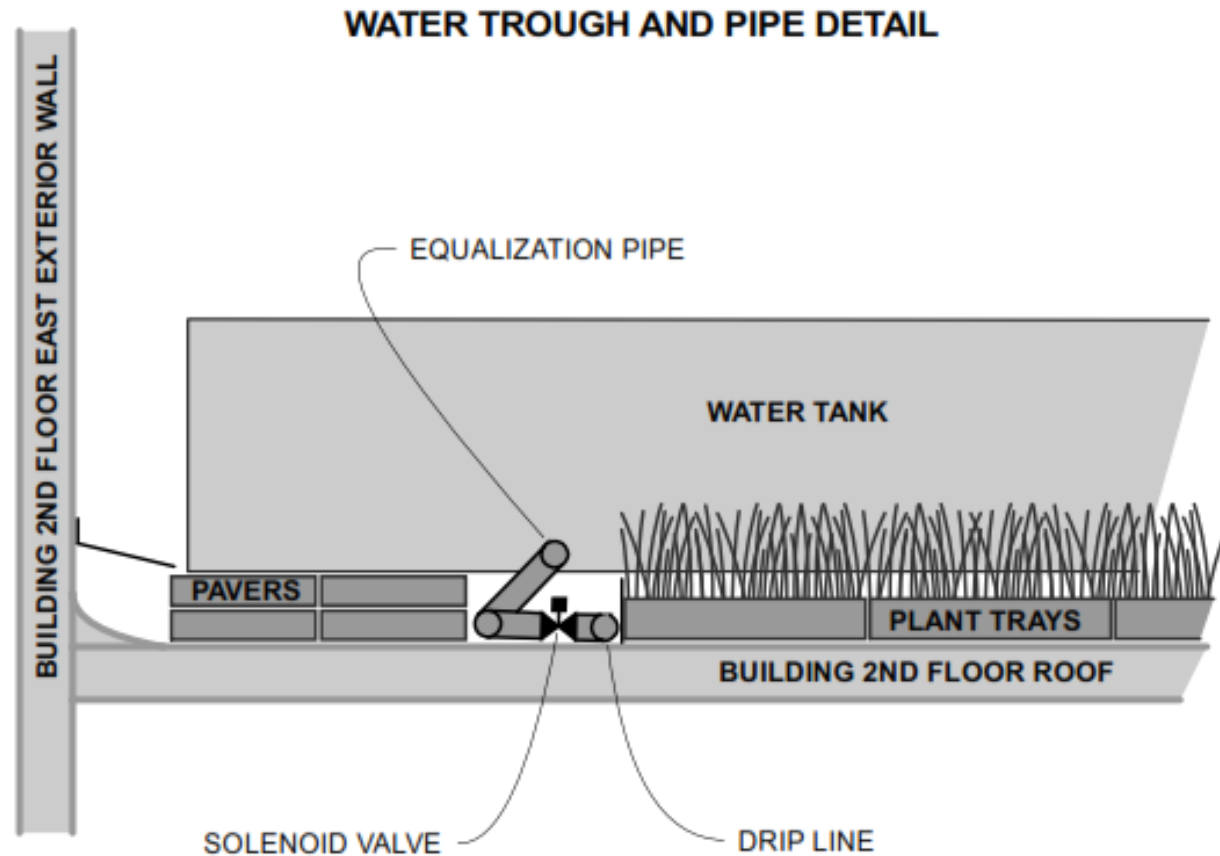


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How Does Water Get To the Plants?



Issues?



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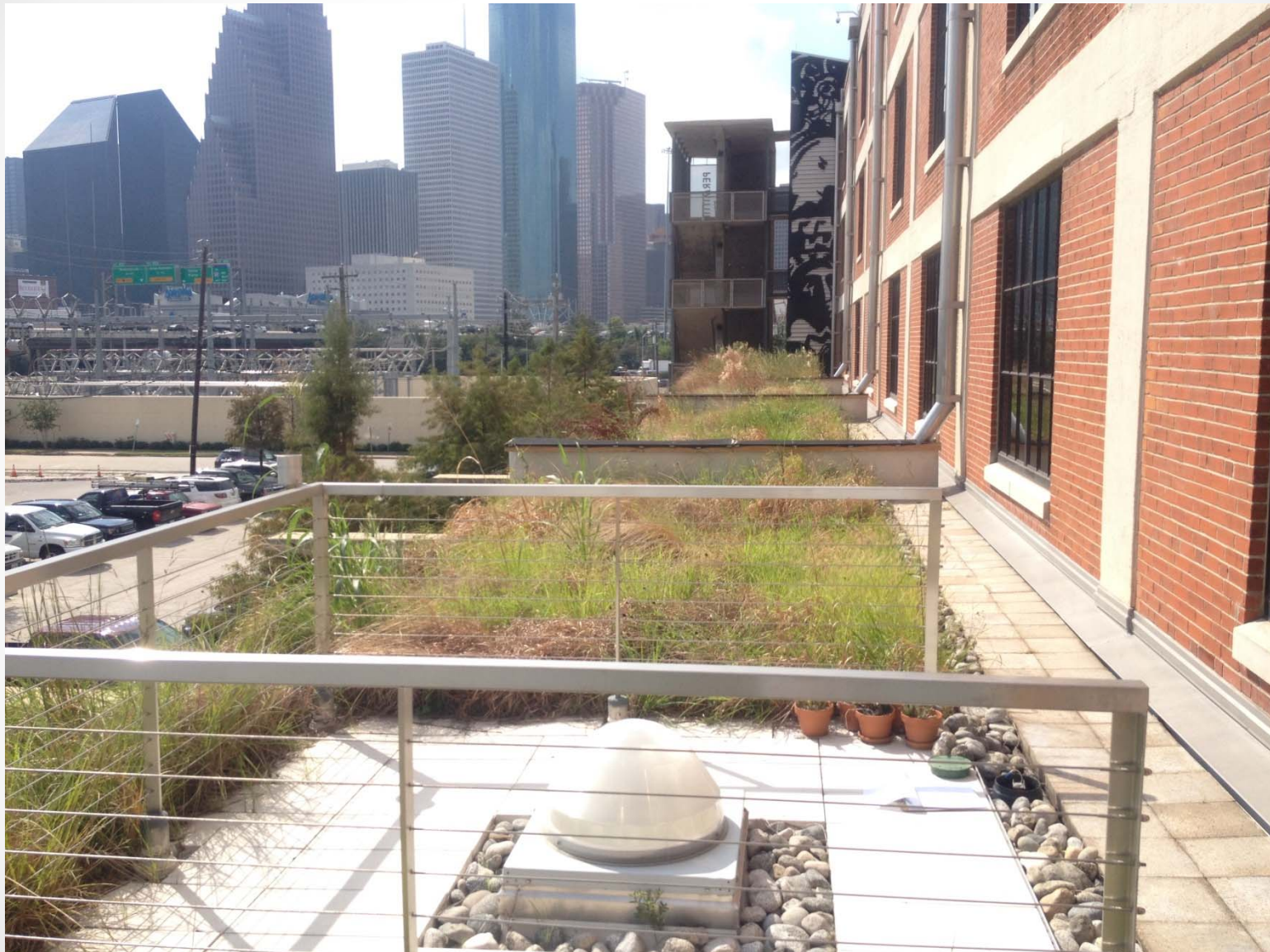
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How To Water

- **Special Soil Does Not Lift Water Very Well**
- **Water From Above**
 - Drip Irrigation Uses the Least Water
 - Spray Irrigation Uses the Most
 - Subsurface Drip Irrigation Works Well
- **It's All About Draining the Excess and Holding the Rest**

Even “au naturel” Works



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Thank you!

It's doable!



Mark Illian and Monika Cikhart
Founders of
Nature Healing Nature (.org)
832-423-8425

Blessings

