Low Impact Development
Construction & Maintenance

Anthony Kendrick, ENV SP
Construction EcoServices

Ecosvs.com | 832.456.1000
I ❤ Bioswales
What Does Stormwater Management Look Like in North Texas?
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Highland Village – Doubletree Ranch Park
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Elm Street – Deep Ellum
BIORETENTION
Design • Construction • Maintenance
Design: Plant Selection
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Design: Clogging
Design: Bridging Stone
Construction Issues: Erosion Control
Construction Issues: Signage
Note: In order to protect the FocalPoint Biofiltration System from inundation of sediment during construction activities, use an 8oz nonwoven geotextile gap with impermeable liner to protect the system. In order to do this, lay impermeable liner over mulch bed, then overlap the geotextile and either use a geotextile adhesive or a torch to weld the fabric together creating a seal. This protective barrier must not be removed until the site is 70% stabilized and the swale draining into the FocalPoint is at least 90% stabilized. Once the site is stabilized, contact your Convergent Value Added Reseller Sales Representative to have the system activated. Once activated, temporary bypass structure is to be permanently capped or removed. Do not activate the system without a representative there to inspect the site or the warranty will be void.
Construction Issues: Quality Assurance
Construction Issues: Performance Verification
Maintenance Issues: Overflow
Maintenance Issues: Plants & Mulch
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Permeable Pavements

Design • Construction • Maintenance
Categories

Porous Pavements

Interlocking Pavers

Gravel Pavers

Open Joint Pavers
Hickory Street – Interlocking Pavers
Hickory Street – Interlocking Pavers
Maintenance
Figure 21. A regenerative air machine cleaning a PICP parking lot.

Figure 22. A true vacuum machine cleaning neglected PICP.
Eastern Commons
Houston, TX

7” Stone Subgrade

Overflow = Bioretention

Drainage Area Ratio = 10:1
Overflow into bioretention basin

20 SF - High Flow Biofiltration System with overflow
Underground Detention:
Required Storage – 27,950 CF
Cost Per CF - $9.50 to $12.00 CF
Cost of System - $280,000

Low Impact Development Solution:
Required Storage – 14,561 CF
Cost per CF - $7.55
Cost of System - $110,000
Keys to Success

- Verify Maintainability
- Design with Emergency Bypass
- Protect System During Construction
- Provide Turn-Key Installation
- Verify Performance in Specification
- Provide Maintenance in Specification
The Future is Multifunctional

- Pavements
- Landscapes
- Rooftops
- Drainage
Dallas Street – Ennis, TX

What’s Coming Down the Pipeline?
Anthony Kendrick, ENV SP
Green Infrastructure Specialist
(214) 701-2117
kendrick@ecosvs.com

QUESTIONS?

Construction EcoServices
Houston | Dallas-Fort Worth | Austin | San Antonio | New Orleans
832.456.1000
www.ecosvs.com