BEST USE FOR:

STORMWATER

RAINBASIN™
UNDERGROUND DETENTION SYSTEM

PARK USA®

UNDERGROUND DETENTION SYSTEM

The ParkUSA RainBasin® is a stormwater detention system designed to mitigate the effects of New Development and Redevelopment on an existing drainage system. In addition, the system can be used for the management of storable and reusable stormwater runoff through ground water recharge or rain harvesting.

Stormwater storage presents a valuable resource for sustainability and overall project goals. One of the common issues is the need of site-specific applications where stormwater needs to be detained and allowed to discharge at a slower controlled rate often mimicking pre-development conditions.

The RainBasin is a system that affords the designer the opportunity to maximize the developed land by placing the detention easily underground such as parking lots and roadways with minimal cover.

FEATURES

- Easy installation
- High capacity level
- Component construction
- Standard and custom sizes available
- LEED compliant
- Long-term sustainability

LID® LOW-IMPACT DEVELOPMENT
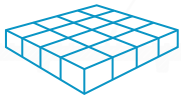
LEED® COMPLIANT

NPCA

EPA

ASTM

BMP® BEST MANAGEMENT PRACTICE

ONLY RAIN DOWN THE STORM DRAIN

PARK USA®
www.parkusa.com

RAINBASIN™
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SYSTEM BENEFITS

- Onsite stormwater management
- Stormwater runoff emulates natural conditions
- Mitigation of downstream flooding
- Modular structure for design considerations
- Rainwater harvesting option

HOW IT WORKS

The RainBasin system consists of a series of interconnected vaults. Stormwater runoff can enter the system through multiple options such as inlets, outlet openings, curbs, grates and downspouts. The accumulated stormwater will be stored within the system with a residence time varying with application and volume.

SIZING AND DESIGN CONSIDERATIONS

When designing a RainBasin system, the surface area and rainfall intensity is used to calculate the overall volume needed to be stored. The number of modules will depend on the storage volume needed. The individual vaults have standard dimensions and come in varying sizes.

Sizing Calculation (for Houston, TX)

For Example: When being used as Detention with existing impervious cover between 1 acre and 10 acres

Per City of Houston Design Manual 9.05(H)(3)d

$$Vt = [43,560 * (0.50 * Aii)] + (1815 * Aei)$$

Vt = Total detention volume in Cubic Ft
Aii = Area of Impervious cover (acres)
Aei = Area of existing Impervious cover (acres) for which detention is not currently provided

Visit **www.rainbasin.parkusa.com** for more information and design assistance.

MAINTENANCE

The RainBasin system is designed for easy maintenance and longevity. The access modules can be arraigned for convenience. The interior of the vault is open. Inspection should be performed at least once a year. During which a complete quality control documentation must be prepared. Confined space certification is required for maintenance.

APPLICATIONS

Low Impact Development

Residential

Commercial

Industrial

Good to use in BMPs

Municipal