



Features

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

Underground Detention System

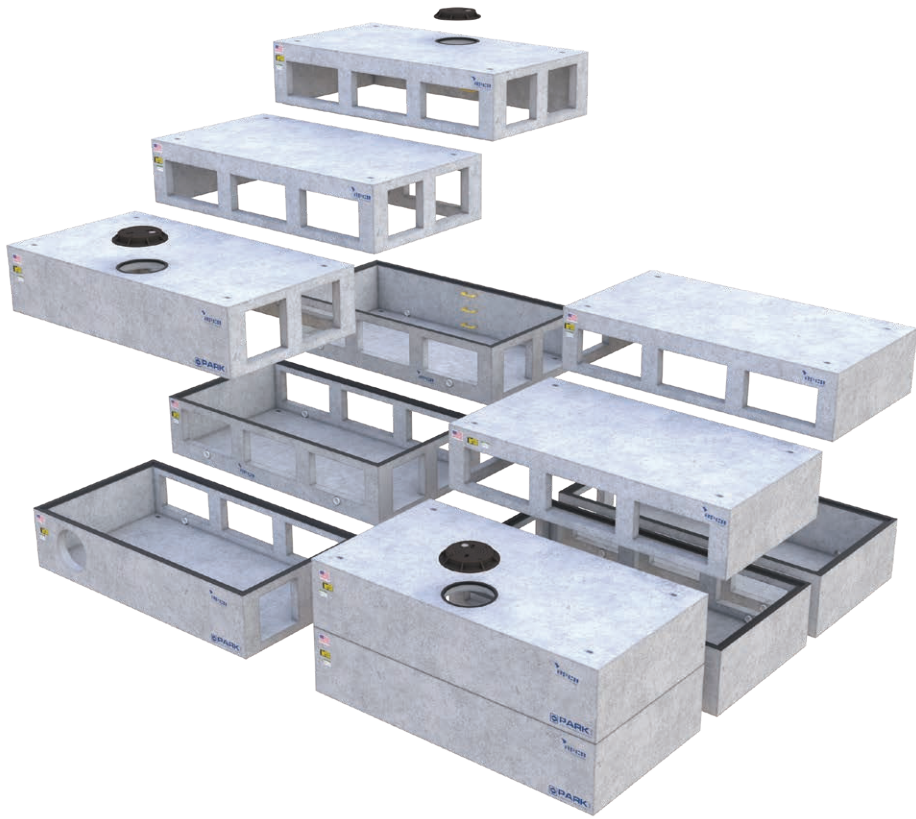
The ParkUSA RainBasin[®] is a stormwater detention system designed to mitigate the effects of New Development and Redevelopment on an existing drainage system. In addition, the system can be used for the management of storable and reusable stormwater runoff through ground water recharge or rain harvesting.

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.



RW | RAINBASIN
Standard



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

To calculate the total detention volume for an area between one acre and 10 acres of existing impervious cover following the methodology specified in the City of Houston Design Manual, the appropriate equation is:

$$V_t = [43,560 * (0.50 * A_{ii})] + (1815 * A_{ei})$$

V_t = Total detention volume in Cubic Ft

A_{ii} = Area of Impervious cover (acres)

A_{ei} = Area of existing Impervious cover (acres) for which detention is not currently provided

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.

System Benefits

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

Maintenance

The RainBasin system is designed for easy maintenance and longevity. The access modules can be arranged 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.

To request a quote or catalog, visit request.parkusa.com.

APPLICATIONS



Good to use
in BMPs



Commercial



Low Impact
Development



Residential



Industrial



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