Infrastructure
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StormVault Enables Smart Site Design

In space-constrained Santa Ana, buildable land is at a premium. The Cowan Ranch Estates project needed to meet post-development stormwater detention and water quality requirements without reducing the number of lots. The team selected Jensen's StormVault system to move 18,700 cubic feet of storage underground while maintaining the surface for roads and homes. This approach allowed the project to maximize usable land and stay on schedule.

Project Details

Project Owner	**Sheldon Development**
Architect/Engineer	**Jensen Infrastructure**
Contractor	**Espinoza Engineering Construction Co.**
Location	**Santa Ana, California**
Products	**StormVault Detention System**

Questions? Let's talk. (775) 352-6345 info@jensenprecast.com

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Problem

The site offered very limited open space, and land costs were high. Local regulations required detaining post-development water quality volume and routing it through a downstream biofiltration system. Conventional above-ground detention would have consumed valuable lots, slowed approvals, and threatened the project's financial viability. The design team needed a system that could achieve regulatory compliance without sacrificing surface area or delaying the construction schedule.

Solution

The team specified StormVault, a modular underground detention system from Jensen. Built on standard box-culvert forms with a spanning bridge slab, it provided 18,700 cubic feet of storage in a single 11-foot wide by 6-foot tall by 100-foot long structure with a shallow 6-foot tie-in. The modular layout reduced piece count and crane picks, while familiar components enabled cleaner submittals and faster approvals. Jensen's in-house design and multi-plant production shortened lead times, and the open-box design simplified future inspections and maintenance.

Key Outcomes

Land Use Efficiency

Preserved buildable land in a high-value area.

Regulatory Compliance

Reduced lead time, piece count, and crane picks for faster installation.

Cost & Time Savings

Met post-development water quality volume requirements and integrated with downstream biofiltration.

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