



**FLIGHT at Tustin**

Irvine, California

## Two Unique Systems, Two Varieties of Prinsco Chambers

**Project Owner:**

Lincoln Property and

Alcoin Ventures

**Civil Engineer:**

Michael Baker International

**Contractor:**

Bali Construction

**Distributor:**

Santa Fe Winwater

**Installation Date:**

July 2017



FLIGHT at Tustin is one-of-kind creative office campus holds 870,000 square feet of space. This site, formally a 1,600-acre Marine Corps Air Station housing blimps and helicopters during and after World War II, is now owned by the City of Tustin. Helping preserve its rich history, Prinsco's HydroStor water retention chambers were installed during one of the first ground-breaking construction projects on the site; maximizing commercial land usage by providing underground stormwater storage and groundwater recharge.

Prinsco's HydroStor products, HS75 and HS180, were used to create two unique systems on the site. The north HS75 system required storage within a shallow depth, making HS75 chamber's small height ideal for this application. The south system needed a smaller footprint where depths were not as shallow; making the taller, higher capacity HS180 chambers optimal for this location. The north bed consists of 216 Chambers and 72 Endcaps allowing 18,932 cubic feet of underground storage. Utilizing a thermoplastic liner creates a detention system that will collect and convey stormwater as substantial rainfall events occur instead of allowing water to infiltrate into the ground. In order to fully expel all stormwater from the system, a 6" perimeter drain is installed to allow full depletion from both the chambers and surrounding stone. It's six, 30" PVC control structures easily connect over the outside diameter of the manifold pipe while controlling inlet, outlet, and distribution flows through integrated weir plates.

Similar to the HS75 detention system design, the southern HS180 system uses 50 chambers and 20 endcaps to create a total capacity of 10,821 cubic feet of storage. It's area of 3,211 square feet remains un-noticeable to the common eye as the public walk and drive over the system just beneath them. Prinsco's HydroStor System is rated for H-20 loading requirements; allowing for normal traffic loading at its minimum cover height and other, increased loads at advanced burial requirements.