

## CITY OF PLANTATION, FLORIDA, USA

**Client:** City of Plantation

**Country:** United States of America

**Length of Pipe:** 3,400 m

**No. of Valves:** 49

**Volume of Flow:** 14.5 litres/second

**Specialist Feature:** Speedy project delivery



Plantation is a city in Broward County, Florida, USA. The local conditions are typical for the state of Florida. The flat terrain with a high water table made vacuum sewerage technology the no.1 choice when the city decided to upgrade to a mains sewage collection system.

The small bore pipework designed by Iseki, laid approximately one metre below ground level, reduced digging costs by up to 40%. The sewage is collected in 49 valve chambers around the site, then transported by vacuum to a vacuum collection station where it is finally pumped to a traditional treatment works.

### Vacuum Pipework

The polyethylene pipework around the site ranges in size from 90mm to 160mm diameter.

### Vacuum Station Equipment

2 No rotary vane vacuum pumps each rated at 400 cubic metres/Hr (Busch) acting in duty/assist configuration.

2 No dry well discharge pumps each rated at 17.5 l/s (Hidrostal) duty/standby.

Vacuum collection vessel volume - 11 cubic metre fully protected with epoxy coating and tested to Lloyds certification.

Motor control cabinet - fully automatic with programmable PLC. All pumps start in rotation and all operating conditions are monitored via station telemetry.

Bespoke valve monitoring system which monitors the open / closed mode of each interface valve located around the site.

28 Day Vacuum Chart Recorder.

Exhaust gases are filtered by passing them through bio-filter irrigation equipment complete with water pump.



Iseki Interface valve installed in valve chamber



11m<sup>3</sup> vacuum vessel