ONE STOP MONITORING SOLUTIONS | HYDROLOGY | GEOTECHNICAL | STRUCTURAL | GEODECTIC Over 50 years of Excellence through ingenuity

- PROJECT DOSSIER -

# SKY VENTURE



## PROJECT OVEREVIEW

Project	Sky Venture
Location	Abu Dhabi, UAE
Client	Miral Asset Management LLC
Contractor	Zublin Construction L.L.C
Consultants	AECOM Middle East Limited
Duration	2016 to 2017

Miral is developing World's biggest indoor sky dive experience i.e. Sky Venture Amusement Building of  $\sim 55\,$  m height with a façade sculptured like a crystal, installation of Sky Venture equipment for the indoor skydiving, an artificial wall climbing facility of  $\sim 43\,$  m, retail shops, and other guest facilities. The facility will be built next to the existing Ferrari World Theme Park on Yas Island, Abu Dhabi. The plot footprint (Plot 507A) is

approximately  $5,343~\text{m}^2$ . The combined Sky Venture and rock climbing facility is anticipated to be approximately  $5,810~\text{m}^2$ .



## ENGARDIO RITE







## Monitoring solution

Geotechnical and geodetic instruments were installed in secant piles and soil to monitor the settlement of ground for verification of initial design of temporary works supporting the excavation.

#### Turnkey services

Encardio-rite was awarded the sub-contract for complete monitoring works of the project. Scope of works included:

- Supply and Installation of geotechnical/ geodetic instruments
- Online and manual monitoring, Surveying
- Weekly and monthly reporting with evaluation & interpretations

## **INSTRUMENT USED**

- Inclinometers: Installed in secant pile to monitor lateral movement of the secant pile
- Prism target: Installed on capping beam to monitor 3D deformation
- Tri-axial vibration sensors: Installed near critical structures to monitor vibrations during excavation works continuously (automatic monitoring)
- Vibration monitoring device: Used near structures to monitor vibrations during excavation works, manually at regular intervals when required.

**Online monitoring** was required for sensors that were at critical locations. Automatic as well as manual monitoring data was provided in weekly and monthly reports to the Contractor, Client as well as the Consultant with evaluation and interpretation for the variations observed.