# CASE STUDY

## Walton-on-Thames Sports Academy

contaminated land remediation

## project **summary**

EPG provided contaminated land remediation and drainage advice during the redevelopment of a 40-year old uncapped landfill where both elevated soil vapours and hazardous landfill gases, including methane, were identified in the subsurface.

## the **challenge**

The remit was to restore the affected land to permit recreational use while ensuring human health and environmental receptors were protected.

## services

- SuDs design
- Landfill gas risk assessment
- Vapour risk assessment
- Landfill settlement assessment
- Integrated mitigation design
- Verification

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## the **solution**

A detailed landfill gas and vapour risk assessment for on-site and nearby receptors was used to develop a remediation options assessment for the client. The final design completed by EPG utilised a high-strength geocomposite, which was laid below a cement-lime stabilised cap to alleviate landfill gas pressure and a similar system above the stabilised cap as a drainage and attenuation system within a slender stone blanket. The scheme also involved the design and verification of a gas membrane and ventilation system beneath all buildings, and a lateral landfill gas migration barrier and bio-filter system.

## the **results**

- By utilising our multi-disciplinary team of engineers and scientists we were able to deliver an integrated and scientifically defensible solution, which provided overall cost-savings for the client while addressing concerns of the local council and regulator.

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